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STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			MCLEAN, NEIL R	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/787,154	LEE ET AL.
	Examiner	Art Unit
	Neil R. McLean	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 February 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-31 is/are rejected.
 7) Claim(s) 13 and 22 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 27 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) ✓
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 7/25/2005

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 13 is objected to because of the following minor informality:

The word 'preformed' should be 'performed'.

Claim 22 is objected to because of the following minor informality:

The phrase "...wherein the best quality yields a a third image quality..." contains the letter 'a' twice, consecutively.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 2001/0048472) in view of Tanaka et al. (US 7,224,480).

Regarding Claim 1:

A method of compressing image data (An image quality selecting method and a digital camera by which a pattern of a combination of the number of pixels and the compression rate can be presented to the user to select a combination for an image quality; [0007], lines 1-9) comprising:

detecting a specified compression ratio corresponding to a display mode (e.g., The Fine mode corresponds with 1/4 JPEG compression, the Normal mode corresponds with 1/8 JPEG compression, and the Basic mode corresponds with (1/16) JPEG compression as described in [0066], lines 8-11) selected by a user (When the item "image quality setting" is selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of display modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4); and

compressing the image data according to the detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as described in [0054], lines 10-11).

Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB terminal (58 in Figure 5) and wherein an image file can be read out of the device memory and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine

paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in the art to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention of Claim 1.

Regarding Claim 2:

Inoue et al. further discloses the method of claim 1, wherein the compression ratios corresponding to the variety of printing modes are stored on a recording medium (Note: It is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Regarding Claim 3:

Inoue et al. further discloses the method of claim 2, wherein the compression ratios corresponding to the variety of printing modes are stored in a lookup table on the recording medium (Please refer to Claim 2 Note).

Regarding Claim 4:

Inoue et al. further discloses the method of claim 3, wherein the variety of printing modes provide varying settings to account for factors including at least one of a degree of an image quality, a type of a printing paper, a type of image data, and a printing color (FIGS. 7(a), 7(b), 7(c), 7(d) and 7(e) are views showing states where setting screens (menu screens) for an image quality are changed).

Regarding Claim 5:

Inoue et al. further discloses the method of claim 4, wherein the degree of image quality includes at least a draft quality, a normal quality, and a best quality (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4).

Regarding Claim 6:

Inoue et al. further discloses the method of claim 5, wherein the draft quality yields a low first image quality and a high first image compression ratio (Note: The larger the

compression rate, the lower the level of compression is, thus the better the image quality is. The smaller the compression rate, the higher the level of compression is, thus the lower the image quality.

The image compression rates can be selected from the three types: Fine mode, Normal mode, and **Basic mode**. Order of listing the image quality in those modes is from superior to poor: the Fine mode for the best, the Normal mode for the second best, and the Basic mode for the third.

In this case, for example, the **Basic mode corresponds with 1/16 (JPEG) compression** which is the **lowest quality** as described in [0066] and [0067]).

Regarding Claim 7:

Inoue et al. further discloses the method of claim 6, wherein the normal quality yields a second image quality higher than the first and a second compression ratio lower than the first (In this case, for example, the Normal mode corresponds with 1/8 (JPEG) compression and as a result the **image quality is higher** than the Basic mode with 1/16 (JPEG) compression as described in [0066] and [0067]).

Regarding Claim 8:

Inoue et al. further discloses the method of claim 7, wherein the best quality yields a third image quality higher than the second image quality and a third compression ratio lower than the second compression ratio (In this case, for example, the Fine mode corresponds with 1/4 (JPEG) compression which will yield a **image quality higher** than that of the Normal mode which is 1/8 (JPEG) compression as described in [0066] and [0067]).

Regarding Claim 9:

Inoue et al. further discloses the method of claim 1, wherein the printing is selected by a user via a user interface (e.g., the Mode Dial 26 changes functions of the camera, and is

set by rotating the mode dial as described in [0040], lines 5-9).

Regarding Claim 10:

Tanaka et al. further discloses the apparatus of Claim 4, wherein the variety of paper includes at least automatic, plain paper, inkjet paper, photo paper, transparency films, special paper, greeting paper, and brochure paper (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Regarding Claim 11:

Inoue et al. further discloses the method of claim 3, wherein image resolution is stored in the look up table (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480 Note: It is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Regarding Claim 12:

Inoue et al. further discloses the method of claim 1, wherein the compressing is performed on the image data by a data loss compression method (e.g., the JPEG lossy compression method described in [0066]).

Regarding Claim 13:

Inoue et al. further discloses the method of claim 12, wherein the compressing is performed on the image data by a JPEG compression method (e.g., the JPEG lossy compression method described in [0066]).

Regarding Claim 14:

Tanaka et al. further discloses the method of claim 1, wherein the method is performed for a print operation to print the image data (FIG. 5 depicts a view for explaining connection between the photo-direct printer apparatus and a digital camera according to the embodiment).

Regarding Claim 15:

Inoue et al. discloses an apparatus for compressing image data (An image quality selecting method and a digital camera by which a pattern of a combination of the number of pixels and the compression rate can be presented to the user to select a combination for an image quality; [0007], lines 1-9) comprising:

a compression ratio detection unit which detects a specified compression ratio corresponding to a display mode (e.g., The Fine mode corresponds with 1/4 JPEG compression, the Normal mode corresponds with 1/8 JPEG compression, and the Basic mode corresponds with (1/16) JPEG compression as described in [0066], lines 8-11) selected by a user (When the item "image quality setting" is selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of display modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4) and outputs the detected specified compression ratio (e.g., to the liquid crystal monitor 40 in Figure 2); and

a data compression unit which compresses the image data according to the detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as described in [0054], lines 10-11).

Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB terminal (58 in Figure 5) and wherein an image file can be read out of the device memory and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in the art to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention of Claim 15.

Regarding Claim 16:

Inoue et al. further discloses the apparatus of claim 15, wherein the compression ratios corresponding to the variety of printing modes are stored on a recording medium (Note: It is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Regarding Claim 17:

Inoue et al. further discloses the apparatus of claim 16, wherein the compression ratios corresponding to the variety of printing modes are stored in a lookup table on the recording medium (Please refer to Claim 16 Note).

Regarding Claim 18:

Inoue et al. further discloses the apparatus of claim 17, wherein the variety of printing modes varying settings to account for factors including at least one of a degree of an image quality, a type of a printing paper, a type of image and a printing color (FIGS. 7(a), 7(b), 7(c), 7(d) and 7(e) are views showing states where setting screens (menu screens) for an image quality are changed).

Regarding Claim 19:

Inoue et al. further discloses the apparatus of claim 18, wherein the variety of image quality includes at least a draft quality, a normal quality, and a best quality (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4).

Regarding Claim 20:

Inoue et al. further discloses the apparatus of claim 19, wherein the draft quality yields a low first image quality and a high first image compression ratio (Note: The larger the compression rate, the lower the level of compression is, thus the better the image quality is. The smaller the compression rate, the higher the level of compression is, thus the lower the image quality.

The image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode. Order of listing the image quality in those modes is from superior to poor: the Fine mode for the best, the Normal mode for the second best, and the Basic mode for the third.

In this case, for example, the Basic mode corresponds with 1/16 (JPEG) compression which is the lowest quality as described in [0066] and [0067]).

Regarding Claim 21:

Inoue et al. further discloses the apparatus of claim 20, wherein the normal quality yields a second image quality higher than the first and a second compression ratio lower than the first (In this case, for example, the Normal mode corresponds with 1/8 (JPEG) compression and as a result the image quality is higher than the Basic mode with 1/16 (JPEG) compression as described in [0066] and [0067]).

Regarding Claim 22:

Inoue et al. further discloses the apparatus of claim 21, wherein the best quality yields a a third image quality higher than the second image quality and a third compression ratio lower than the second compression ratio (In this case, for example, the Fine mode corresponds with 1/4 (JPEG) compression which will yield a **image quality higher** than that of the Normal mode which is 1/8 (JPEG) compression as described in [0066] and [0067].

Regarding Claim 23:

Inoue et al. further discloses the apparatus of claim 1, wherein the printing is selected by a user via a user interface (e.g., the Mode Dial 26 changes functions of the camera, and is set by rotating the mode dial as described in [0040], lines 5-9).

Regarding Claim 24:

Tanaka et al. further discloses the apparatus of Claim 18, wherein the variety of paper includes at least automatic, plain paper, inkjet paper, photo paper, transparency films, special paper, greeting paper, and brochure paper (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (**plain paper, fine paper, or the like**) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Regarding Claim 25:

Inoue et al. further discloses the apparatus of claim 17, wherein image resolution is stored in the look up table (The number of imaging pixels can be selected from 2400x1800, 1280x960,

and 640x480 Note: It is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Regarding Claim 26:

Inoue et al. further discloses the apparatus of claim 15, wherein the data compression unit performs compression on the image data by a data loss compression method (e.g., the JPEG lossy compression method described in [0066]).

Regarding Claim 27:

Inoue et al. further discloses the apparatus of claim 26, wherein the data compression unit performs compression on the image data by a JPEG compression method (e.g., the JPEG lossy compression method described in [0066]).

Regarding Claim 28:

Inoue discloses an image data compressing system (An image quality selecting method and a digital camera by which a pattern of a combination of the number of pixels and the compression rate can be presented to the user to select a combination for an image quality; [0007], lines 1-9) comprising:

a compression ratio detection section which detects a specified compression ratio corresponding to a printing mode (e.g., The Fine mode corresponds with 1/4 JPEG compression, the Normal mode corresponds with 1/8 JPEG compression, and the Basic mode corresponds with (1/16) JPEG compression as described in [0066], lines 8-11) selected by a user (When the item "image quality setting" is selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is

displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of printing modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4) and outputs the detected specified compression ratio (e.g., to the liquid crystal monitor 40 in Figure 2); and

a data compression section which compresses the image data according to the detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as described in [0054], lines 10-11).

Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB terminal (58 in Figure 5) and wherein an image file can be read out of the device memory and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in the art to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention of Claim 28.

Regarding Claim 29:

Inoue et al. further discloses the system of claim 28, further comprising a storage section which stores the compression ratios corresponding to the variety of printing modes (Note: It is inherent in order for a display to show the compression ratios and printing modes to the user that this information must already reside and be allocated physically within a particular storage location (address) of memory such that a read instruction can access the data and transfer it to the display).

Regarding Claim 30:

Inoue et al. further discloses the method of claim 29, wherein the compression ratios corresponding to the variety of printing modes are stored in a lookup table in the storage section (Please refer to Claim 29 Note).

Regarding Claim 31:

Inoue et al. discloses a computer readable storage medium encoded with processing instructions for causing a computer to perform a method of compressing image data (An image quality selecting method and a digital camera by which a pattern of a combination of the number of pixels and the compression rate can be presented to the user to select a combination for an image quality; [0007], lines 1-9) comprising:

detecting a specified compression ratio corresponding to a display mode selected by a user (When the item "image quality setting" is selected by the right key 28, the left key 30, or the up/down lever 32, a menu screen for image quality setting is displayed as shown in FIG. 7a) from compression ratios corresponding to a variety of display modes (The number of imaging pixels can be selected from 2400x1800, 1280x960, and 640x480; the image compression rates can be selected from the three types: Fine mode, Normal mode, and Basic mode as described in [0066], lines 1-4); and

compressing the image data according to the detected specified compression ratio (See Compressing/Decompressing Circuit 82 in Figure 6 as described in [0054], lines 10-11).

Inoue et al. discloses all of the above including a video out (54 in Figure 5), a USB terminal (58 in Figure 5) and wherein an image file can be read out of the device memory and displayed on a display such as a LCD monitor or TV (As described in [0059] lines 6-7).

Inoue et al. does not expressly disclose wherein one of the display modes is a print mode.

Tanaka et al. discloses wherein one of the display modes is a print mode (By selecting the print menu 92, a printing paper size, color/monochrome printing, the type of paper (plain paper, fine

paper, or the like) used for printing, unframed/framed printing and the like, can be designated as described in Column 8, lines 5-10).

Inoue et al. & Tanaka et al. are combinable because they are from the same field of endeavor of image processing: e.g., both art contain image quality selection methods.

At the time of the invention it would have been obvious to one of ordinary skill in the art to employ a print mode selected by the user.

The suggestion/motivation for having a print mode selected by the user for printing an image by connecting a device such as a camera and a printer directly via a cable or wireless communication without a PC is because it is easier, faster and convenient to print image data since there are fewer steps required such as booting up a computer, launching software and transferring the image data to the PC before printing.

Therefore, it would have been obvious to combine the print mode selected by the user of Tanaka et al. with the Image Quality Selecting Method of Inoue et al.'s to obtain the invention of Claim 31.

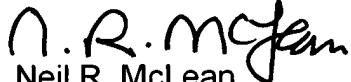
Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Parulski et al. (US 5,402,170) discloses a portable, electronic camera is connectable to a computer for capturing an image and providing the captured image to the computer for storage therewith. The camera ergonomically acts like an independent, self-functioning peripheral device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil R. McLean whose telephone number is 571.270.1679. The examiner can normally be reached on Monday through Friday 7:30AM-5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571.272.7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Neil R. McLean
02/07/2008


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SUPERVISORY PATENT EXAMINER